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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,218	11/14/2003	Atsuhiko Sakurai	TI-35159	2554

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EXAMINER	
FLANDERS, ANDREW C	

ART UNIT	PAPER NUMBER
2615	

NOTIFICATION DATE	DELIVERY MODE
07/23/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com
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Office Action Summary

Application No.

10/714,218

Applicant(s)

SAKURAI ET AL.

Examiner

Andrew C. Flanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crocket (U.S. Patent Application Publication 2004/0122662) in view of Suzuki (Time-Scale Modiviation of Speed Signals Using Cross-Correlation Functions).

Regarding **Claim 1**, Crocket discloses:

A method of time scale modification of a digital audio signal (Fig. 5) comprising the steps of:

analyzing an input signal in a set of first equally spaced, overlapping time windows having a first overlap amount $S_{sub.a}$ (paras 117-122 and Fig. 5 steps 202-206);

selecting a base overlap $S_{sub.s}$ for output synthesis corresponding to a desired time scale modification (Fig. 5 step 208);

calculating a cross correlation $R[k]$ for index value k between overlapping frames for a range of overlaps between $S_{sub.s} + k_{sub.min}$ to $S_{sub.s} + k_{sub.max}$ for a fixt length overlap region (paras 152-157 and Fig. 5 step 210);

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selecting a value K yielding the greatest cross correlation value $R[k]$ (para 252);

synthesizing an output signal in a set of second equally spaced, overlapping time window having a second overlap amount equal to $S_s + K$ (para 196 and Fig. 5 step 226).

Crocket teaches the use of a correlation measure in a time-scale modification procedure, but does not teach the actual mathematical function claimed in claim 1. Suzuki discloses calculating the cross-correlation using the equation claimed in claim 1 (see 2.1, equation (1)). While the notation of the variable is different, the equations are mathematically equivalent.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Suzuki with the teachings of Crockett. The various benefits of this method are disclosed on Page 1 of Suzuki.

Regarding **Claim 2**, in addition to the elements stated above regarding claim 1, the combination further discloses:

the measure to the overlap length $M_{sub.k}$ is $L_{sub.k}/2$ (paras 152-157 and 252).

Regarding **Claim 3**, in addition to the elements stated above regarding claim 1, the combination does not explicitly disclose wherein the shift amount m is 12. However, while Suzuki doesn't give exact ranges or values, 12 is within

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one of the obvious possibilities to chose for the value depending on how one would like to set up the system and its performance.

Regarding **Claim 4**, in addition to the elements stated above regarding claim 1, the combination discloses:

said step of calculating the cross-correlation $R[k]$ employs only a center half of the overlap region for $k=0$ (paras 152-157 and 252).

Regarding **Claims 5-8**, see the preceding arguments with respect to claims 1-5, the combination teaches the remaining features.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1, 4, 5 and 8 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 2, 3, 5 and 6 of copending Application No. 10/714,175. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**SINH TRAN
SUPERVISORY PATENT EXAMINER**

acf